



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,697	04/14/2004	Tetsuyo Ohashi	03500.018072	5361
5514	7590	06/10/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			COLILLA, DANIEL JAMES	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/823,697

Applicant(s)

OHASHI ET AL.

Examiner

Daniel J. Colilla

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004 and 03 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/3/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is not in the form of a single paragraph. Correction is required. See MPEP § 608.01(b).
2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:
 - The specification does not use the terminology “oblique motion correction” as recited in claim 10, lines 25-26 and claim 16, lines 25-26.
 - The specification does not use the terminology “deviated to the recording section” as recited in claim 12, line 4.
3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claims 1-9 and 14 are objected to because of the following informalities:

In claim 1, lines 7-8, the phrase, “share a part of them with each other” is vague. It is not clear to what the term “them” is referring.

Art Unit: 2854

In claim 1, line 11, it appears that “of” should actually be --for-- in order to make grammatical sense.

In claim 9, lines 4 and 11, it appears that “fist” should actually be, --first--.

In claim 14, line 4, “the position” has no antecedent basis in the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 12-15 and 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 12 and 18, the phrase “conveying roller deviated to the recording section” is vague and indefinite. This phrase suggests that the conveying roller is somehow displaced or biased towards the recording section. However, there is no support for such a limitation in the specification. However, there is a support for the pinch roller being spaced towards the discharge roller 30 and slightly offset from the center position of the conveying roller. For purposes of applying prior art, it is this interpretation that will be used.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

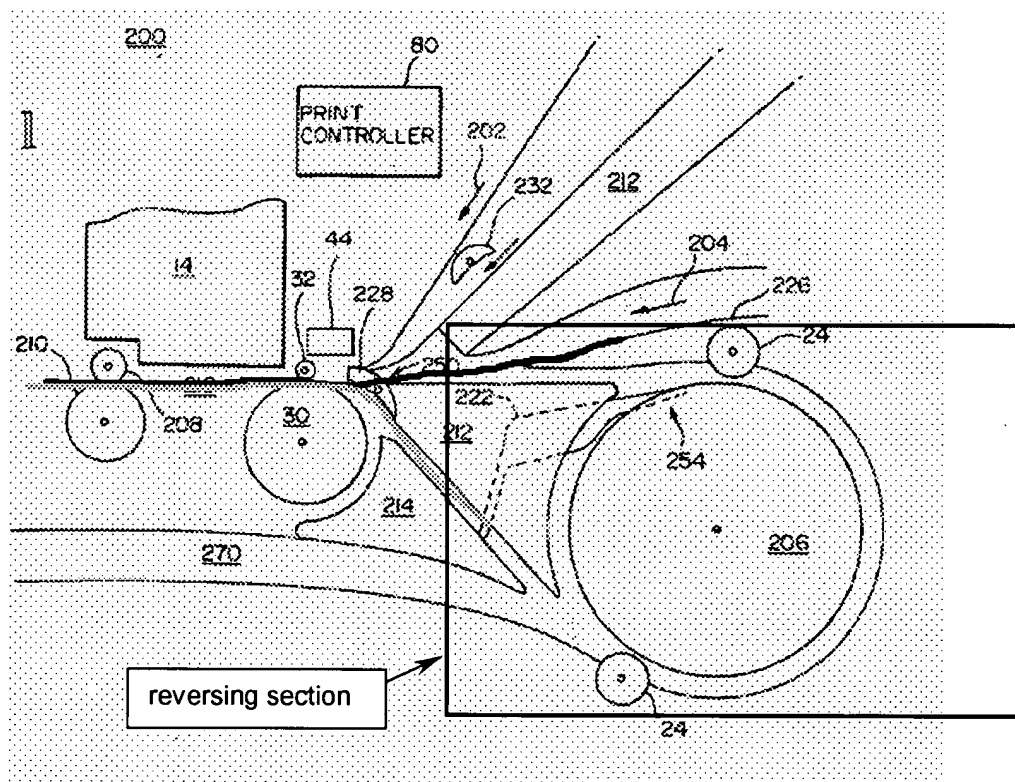
Art Unit: 2854

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2, 4-5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Beretta et al. (US 5,772,343).

With respect to claims 1 and 9, Beretta et al. discloses a both-side recording apparatus including a first sheet passing path, a second sheet passing path which each share a common portion as shown below in the Figure taken from Figure 21 of Beretta et al.:



The black line shows the first sheet passing path and the gray line shows the second sheet passing path. Beretta et al. further discloses a guide member 228 for guiding a tip of a recording medium to a nip created by rollers 32 and 30; the guide member 228 being a shared part of the sheet feeding paths as shown above. Note, applicant's statements of intended use in claim 1 (the

Art Unit: 2854

statements beginning with “for guiding”) are not given patentable weight in the claim since they are statements of how the device is intended to be used but do not positively recite any structure in the claim.

With respect to claim 2, Beretta et al. discloses a sheet feeding roller 30 and a pinch roller 32 capable of opposingly contacting said sheet feeding roller with pressure as shown in Figure 24 of Beretta et al. Note that any contact between the rollers will involve at least a small amount of pressure. The pinch roller 32 is capable of separating from the sheet feeding roller 30 as shown in Figures 22 and 23 of Beretta et al. The language in claim 1 regarding the timing of movements of the guide member and the pinch member are functional recitations. The structure recited by Beretta et al. is capable of performing these functions.

With respect to claim 4, applicant has only recited functional limitations in this claim. The structure recited by Beretta et al. is capable of carrying out these functions.

With respect to claim 5, Beretta et al. discloses that the recording apparatus is capable of being in a first state in which the pinch roller 32 is in contact with the sheet feeding roller 30 and the guide member 228 is in the first position 250 as shown in Figure 21 of Beretta et al. While this Figure appears to show the pinch roller 32 spaced apart from the feeding roller 30 the examiner contends that this is an error in the drawing and, by definition, a pinch roller contacts another roller that it is in pinching cooperation with. Figure 22 shows the second state in which the pinch roller 32 is separated from the feeding roller 30 and the guide member 228 is in the second position 252. Figure 24 shows a third state in which the pinch roller 32 is in contact with the feeding roller 30 and the guide member 228 is in the second position.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beretta et al. (US 5,772,343) in view of Makino et al. (JP 9-327950).

Beretta et al. discloses the claimed both-side recording apparatus except for the elastic member. Beretta et al. discloses that the guide member 228 is positioned into the first position by gravity. However, Makino et al. discloses a both-side recording apparatus including a spring for biasing a guide member 13 into a first of two positions as shown in Figure 2(a) of Makino et al. (see paragraph [0011] of the machine translation of Makino et al.). It would have been obvious to combine the teaching of Makino et al. with the both-side printing apparatus disclosed by Makino et al. for the advantage of a spring acting as an additional bias into the first position that will ensure that the guide remains in the first position if the recording apparatus is bumped or knocked. Additionally, the structure recited by Beretta et al. is capable of performing the functional recitations recited in the claim.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beretta et al. (US 5,772,343) in view of Lee et al. (US 6,629,787).

Beretta et al. discloses the claimed both-side recording apparatus except for the space between the recording means and the recording medium being variable. However, Lee et al.

Art Unit: 2854

teaches a controller 60 for automatically adjusting the gap between the recording means 30 and a recording medium P as shown in Figures 4-5 of Lee et al. It would have been obvious to combine the teaching of Lee et al. with the recording apparatus disclosed by Beretta et al. for the advantage of maintaining the recording means at an optimum distance from the surface of the recording medium regardless of the thickness of the medium. Additionally, the structure recited by Beretta et al. is capable of performing the functional recitations recited in the claim.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beretta et al. (US 5,772,343) in view of Watanabe (JP 11-208923).

Beretta et al. discloses the claimed both-side recording apparatus except for the variable pressure at which the pinch roller is applied. However, Watanabe teaches a recording apparatus with a pinch roller 3 that can be applied with varying pressure through use of a pressure variation regulation means 9 as shown in Figure 2 of Watanabe. It would have been obvious to combine the teaching of Watanabe with the recording apparatus disclosed by Beretta et al. for the advantage of adjusting the improving the recording medium conveying accuracy when the conveying load changes such as when a recording medium of different thickness is conveyed. Additionally, the structure recited by Beretta et al. is capable of performing the functional recitations recited in the claim.

13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beretta et al. (US 5,772,343) in view of Ouchi et al. (US 6,869,241).

Beretta et al. discloses the claimed both-side recording apparatus except for the recording medium detecting lever. Beretta et al. discloses a sensor 44 for detecting a recording medium. However it is not known if the sensor includes a detecting lever. Ouchi et al. teaches a recording medium detecting lever 69a as shown in Figure 4 of Ouchi et al. It would have been obvious to combine the teaching of Ouchi et al. with the both-side recording apparatus disclosed by Beretta et al. for the advantage of the correcting errors in the feed timing of the recording medium based on mechanical defects of the detection system (Ouchi et al., col. 8, lines 17-28).

14. Claims 10-11 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya (JP 2002-67292) in view of Park (US 6,007,063).

With respect to claim 10, Sugaya discloses the claimed both-side recording apparatus except for the feeding means and the tip end of the recording medium being subjected to oblique motion correction. Sugaya discloses a conveying roller 31, a pinch roller 32, a reversing section 7 and a guide member 62a,62b movable from a first position (shown in Figure 2 of Sugaya) to a second position (shown in Figure 3 of Sugaya). In the first position, the guide member 62a,62b guides the recording medium 1 conveyed from feeding guide 61 to the nip of rollers 31 and 32. In the second position the guide means 62a,62b guides the recording medium 1 conveyed in the opposite direction (see paragraph [0124] of the machine translation of Sugaya) from the recording section 2 to the reversing section 7.

Park teaches a feeding means 11 for feeding a recording medium 1 to a recording section 30 and teaches subjecting the recording medium 1 to oblique motion correction as mentioned in col. 4, lines 14-20 of Park. It would have been obvious to combine the teaching of Park with the

Art Unit: 2854

both-side recording apparatus disclosed by Sugaya for the advantage of aligning the recording medium before printing so that the print is aligned on the recording medium.

With respect to claims 11 and 17, Figure 1 of Sugaya shows a first conveying path a portion of which is formed by guide 62a,62b that is located above the second conveying path shown in Figure 3 of Sugaya; a portion of which is formed by the displaced guide 62a,62b. The first path guides the recording medium 1 from the feeding guide 61 to the conveying roller 31 and the second path guides the recording medium 1 from the conveying roller 31 to the reversing section 7.

With respect to claim 16, Sugaya discloses the claimed both-side recording apparatus except for the feeding means and the tip end of the recording medium being subjected to oblique motion correction. Sugaya discloses a conveying roller 31, a pinch roller 32, a reversing section 7 and a guide member 62a,62b movable from a first position (shown in Figure 2 of Sugaya) to a second position (shown in Figure 3 of Sugaya). In the first position, the guide member 62a,62b guides the recording medium 1 conveyed from feeding guide 61 to the nip of rollers 31 and 32. In the second position the guide means 62a,62b guides the recording medium 1 conveyed in the opposite direction (see paragraph [0124] of the machine translation of Sugaya) from the recording section 2 to the reversing section 7. Additionally, regardless of the thickness of the recording medium, a portion of the time the guide member 62a,62b is in the first position, and another portion of the time the guide member 62a,62b is in the second position.

Park teaches a feeding means 11 for feeding a recording medium 1 to a recording section 30 and teaches subjecting the recording medium 1 to oblique motion correction as mentioned in col. 4, lines 14-20 of Park. It would have been obvious to combine the teaching of Park with the

Art Unit: 2854

both-side recording apparatus disclosed by Sugaya for the advantage of aligning the recording medium before printing so that the print is aligned on the recording medium.

15. Claims 12-13 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya (JP 2002-67292) in view of Park (US 6,007,063) as applied to claims 10-11 and 16-17 above, and further in view of Matsumoto (US 2003/0048345).

With respect to claims 12 and 18, Sugaya in view of Park discloses the claimed both-side recording apparatus except for the pinch roller being in a position deviated towards the recording section with respect to the conveying roller. However, Matsumoto teaches a pinch roller 102 that is deviated towards a recording section 103 with respect to a conveying roller 101 as shown in Figure 7 of Matsumoto. It would have been obvious to combine the teaching of Matsumoto with the recording apparatus disclosed by Sugaya in view of Park for the advantage of directing the recording medium towards the surface of the platen before the recording medium enters the recording section so that a consistent distance between the recording medium and recording head are maintained.

With respect to claim 13 and 19, the first position of the guide member 62a,62b (shown in Figure 2 of Sugaya) is higher than the second position of the guide member 62a,62b (shown in Figure 3 of Sugaya).

Art Unit: 2854

Allowable Subject Matter

16. Claims 14-15 and 20-21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action, to the satisfaction of the examiner, and to include all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter:

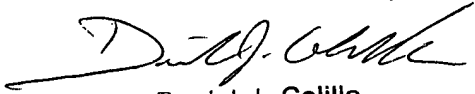
Claims 14-15 and 20-21 have been allowed primarily for the guide member being located in the first position such that it guides the recording medium to the nip from a position higher than the nip of the conveying roller and pinch roller.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Colilla whose telephone number is (571) 272-2157. The examiner can normally be reached Mon.-Thur. between 7:30 am and 5:00 pm. Faxes regarding this application can be sent to (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached at (571) 272-2168. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 26, 2005


Daniel J. Colilla
Primary Examiner
Art Unit 2854